Hanford Fact Sheet

DRAFT WASTE INCIDENTAL TO REPROCESSING EVALUATION FOR CLOSURE OF C TANK FARM


C Tank Farm

Overview

The U.S. Department of Energy (DOE) is seeking public comment on its Draft Waste Incidental to Reprocessing (Draft WIR) Evaluation for Closure of Waste Management Area C (WMA C). WMA C is in the central part of the 560-square-mile Hanford Site, which is located in southeastern Washington state.

The Draft WIR Evaluation is an important step toward closure of the 16 single-shell tanks in Hanford's C Tank Farm. C Farm is one of Hanford's 18 tank farms that have a total of 177 underground tanks. DOE has retrieved more than 1.7 million gallons of waste from the tanks in C Farm (approximately 96 percent of the waste volume and key radionuclides) and transferred it to newer double-shell tanks. Closing the C Farm tanks would be a significant achievement in the Hanford cleanup mission.

The Draft WIR Evaluation would, if finalized, provide the basis for a determination that the retrieved tanks, ancillary structures, and any remaining residual waste in WMA C can be managed as low-level waste. This determination would be the first step in a regulatory process that involves filling the tanks with a concrete-like grout, placing an engineered surface barrier above them and their ancillary structures (e.g., transfer piping), and monitoring C Farm to ensure the integrity of the barrier and the tanks.

DOE announced this approach to closing WMA C in its 2013 Record of Decision for the Final Tank Closure and Waste Management Environmental Impact Statement. This approach to closing WMA C would require a final WIR Determination and a Resource Conservation and Recovery Act permit from the Washington State Department of Ecology (Ecology).

DOE Authority to Make Waste Determinations

DOE's regulatory authority to evaluate and determine whether radioactive waste once managed as high-level wastes may be managed as low-level waste comes from the Atomic Energy Act of 1954. DOE's procedures for exercising this authority is found in DOE Order 435.1, Radioactive Waste Management. This Order establishes the requirements for management of all radioactive waste generated by DOE.

Public comment period: June 4-Sept. 7, 2018

HOW CAN YOU GET INVOLVED?

There are several opportunities to learn more about the purpose, scope, and process for the draft WIR Evaluation, and to provide comment on it:

(1) *Review the Draft WIR Evaluation online at: www.hanford.gov/page.cfm/WasteManagementAreaC*

(2) *Attend a public meeting. Presenters from DOE headquarters, the Office of River Protection, the NRC, and federal contractors will provide detailed briefings and answer questions.*

Meeting information:

Monday, June 18, 2018
9:00 a.m. – 5:00 p.m.

Richland Public Library,
955 Northgate Drive

(3) *Provide comments on the Draft WIR Evaluation and related performance assessment via email or mail during the 96-day comment period* ***(June 4 – September 7, 2018).***

Email:
WMACDRAFTWIR@rl.gov

Mail: Mr. Jan Bovier
U.S. Department of Energy,
Office of River Protection
P.O. Box 450, MSIN H6-60
Richland, WA 99354

Hanford Fact Sheet

DRAFT WASTE INCIDENTAL TO REPROCESSING EVALUATION FOR CLOSURE OF C TANK FARM

FREQUENTLY ASKED QUESTIONS

Q: Has DOE conducted a WIR evaluation at Hanford or other sites?

A: At Hanford, a WIR evaluation and determination was made regarding the disposal of three gallons of low-activity tank waste as part of a treatability test in 2017. DOE also made a WIR evaluation and determination at its West Valley site in New York. DOE used an analogous waste determination process at its sites in South Carolina and Idaho. (See Appendix A of the Draft WIR Evaluation on "Consideration of the Criteria in Section 3116 of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005.")

Q: What does the draft WIR Evaluation show in terms of worker and public safety?

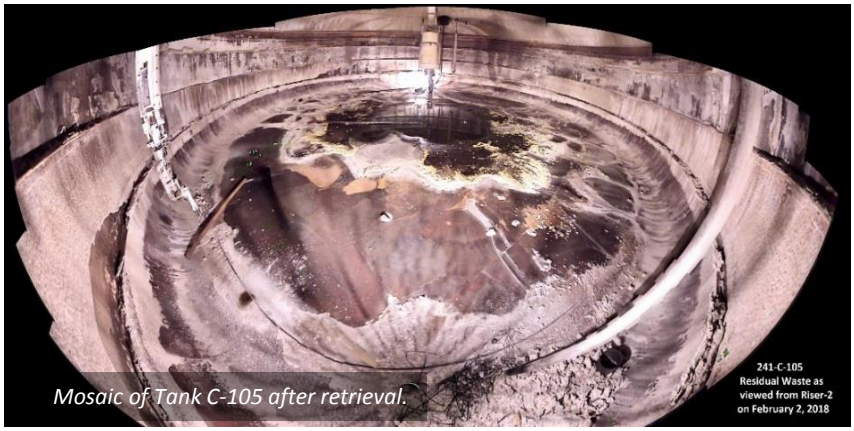
A: It shows that the proposed approach to closing WMA C – stabilizing the tanks and their auxiliary structures with a concrete-like grout and placing an engineered surface barrier above them – would protect workers, the public, and the environment, as the small amount of residual waste in the tanks, once stabilized with grout and covered by a surface barrier, would not pose a significant threat.

Q: What is the Performance Assessment (PA)?

A: The PA is an analysis used to estimate the impacts that stabilized residual waste might have over the next 1,000 years (and beyond). The PA uses detailed analytical models to predict the fate and transport of radionuclides in the stabilized residuals. The analytical results inform DOE about the anticipated risks associated with the closure of WMA C. The PA provides the technical basis for the draft WIR evaluation, as well as a variety of other closure-related documents, corrective measures, and regulatory approvals necessary to close WMA C.

DOE Authority to Make Waste Determinations (continued)

Among the Order's requirements are those which govern the management of reprocessing waste based on its risk and disposal requirements. DOE has successfully closed emptied underground waste tanks that formerly held reprocessing waste at the Savannah River Site in South Carolina and the Idaho National Laboratory.



Mosaic of Tank C-105 after retrieval.

Role of the Nuclear Regulatory Commission (NRC)

DOE has asked the NRC to be a technical peer reviewer for DOE's management of waste incidental to reprocessing. NRC will review the Draft WIR Evaluation and provide a Technical Evaluation Report. DOE will consider NRC's technical review before deciding to issue a final WIR Evaluation. Following consultation with the NRC and consideration of comments from stakeholders, Tribal Nations, and the public, DOE anticipates issuing a final WIR Evaluation in mid-2019.

Additional Regulatory Requirements for Closing WMA C

A WIR Determination addresses only the radionuclides remaining in the residual waste in the tanks and their auxiliary structures in WMA C. Because the residual waste is mixed waste (radioactive and hazardous), WMA C must also meet Washington State's dangerous waste requirements for closure (Washington Administrative Code [WAC] 173-303, "Dangerous Waste Regulations").

Pursuant to the Tri-Party Agreement, closure plans must be approved by Ecology and incorporated into the Hanford Site-Wide Dangerous Waste Permit before DOE can proceed with closing the tanks. Modification of this permit will require a separate public comment process and other proceedings.

For more information on the Draft WIR Evaluation, including how to submit comments, please visit:

www.hanford.gov/pageaction.cfm/calendar?IndEventId=9993